

SEQUENCE LISTING

<110> Arya

<120> Lentivirus Vector System

<130> 67517

<140>

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<150> 09/869,588

<151> 2001-06-28

<150> PCT/US00/00390

<151> 2000-01-06

<150> 60/115,247

<151> 1999-01-07

<160> 32

<170> PatentIn Ver. 2.1

<210> 1

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<212> DNA

<213> Human immunodeficiency virus type 2

<400> 1

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<211> 196

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pROD(PK36)
leader sequence

<400> 2

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a acacctggga gatggg                                     196
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<210> 3

<211> 97

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pROD(SK36)
leader sequence

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cctaccttta gacaggtaga agattgtggg agatggg 97

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<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pROD(SD36)
Leader sequence

<400> 4

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<210> 5

<211> 109

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pROD(CG36)
Leader sequence

<400> 5

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ggcagtaagg ctccgggtga aggtaagtac ctacaccgtg ggagatggg 109

<210> 6

<211> 132

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pROD(MR36)
Leader sequence

<400> 6

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aaaggagcgt tgtggagcgt gaggagaaag aggtcccggt tgaaggtaag tacctacacc 120
gtgggagatg gg 132

<210> 7

<211> 82

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pROD(SD36/EM)
envelope region

<400> 7

acagaggctt ttgatgcata ggtagcgtga gatcttagtg cataggtagc gtgagatctt 60
agtgc aaaga tcgaataata ca 82

<210> 8

<211> 30

<212> DNA

<213> Human immunodeficiency virus type 2

<400> 8

acagaggctt ttgatgcatg gaataatata 30

<210> 9

<211> 4203

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: pCM-ENV(ROD)
vector

<220>

<221> promoter

<222> (1)..(795)

<223> CMV IE promotor

<400> 9

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ttt
4203

```

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<210> 10
<211> 560
<212> DNA
<213> Simian immunodeficiency virus

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```

```

ctgggcagag tgactccacg cttgcttgc taaagccctc ttcaataaag ctgccatttt 180
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aataataaga agaccctggt ctgttaggac cctttctgct ttgggaaacc gaagcaggaa 300
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cggctgagtg aaggcagtaa gggcggcagg aaccaaccac gacggagtgc tcctataaag 420
gcgcgggtcg gtaccagacg gcgtgaggag cgggagagga agaggcctcc gggtgcaggt 480
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gggagatggg cgtgagaaac                                     560

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<210> 11
 <211> 54
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: pSIV(SD36)
 Leader sequence

```

<400> 11
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```

<210> 12
 <211> 249
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: pSIV(SDM)
 Leader sequence

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<400> 12
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taccagacgg cgtgaggagc gggagaggaa gaggcctccg gttgatatcg agtgaacac 180
aaaaaagaaa tagctgtctt ttatccagga aggggtaata agatagagtg ggagatgggc 240
gtgagaaac                                     249

```

<210> 13
 <211> 550
 <212> DNA
 <213> Human immunodeficiency virus type 2

```

<400> 13
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aggtaccaag ggcggcgtgt ggagcgggag tgaaagaggc ctccgggtga aggtaagtgc 480
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gtgggagatg                                     550

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<210> 14
 <211> 2769
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 pSGT-5 (SDM/RRE1)

<220>
 <221> misc_feature
 <222> (1536)..(1835)
 <223> RRE sequence

<220>
 <221> misc_feature
 <222> (1)..(555)
 <223> U3 sequence

<220>
 <221> misc_feature
 <222> (729)..(856)
 <223> U5 sequence

<220>
 <221> misc_feature
 <222> (1101)..(1508)
 <223> gag sequence

<220>
 <221> misc_feature
 <222> (1836)..(1863)
 <223> multiple cloning site

<220>
 <221> misc_feature
 <222> (2042)..(2595)
 <223> U3 sequence

<220>
 <221> misc_feature
 <222> (2596)..(2769)
 <223> R sequence

<220>
 <221> misc_feature
 <222> (556)..(728)
 <223> R sequence

<400> 14
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 agaggggaata attggagact ggcagaacta tactcatgga ccaggagtaa ggtatccaaa 120
 gttcttttggg tggttatgga agctagtacc agtagatgtc ccacaagagg gagatgacag 180
 tgagactcac tgcttagtgc atccagcaca aacaagcagg tttgatgacc cgcattggaga 240
 aacattagtt tggagggttg accccacgct agcttttagc tacgaggcct ttattcgata 300
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agcaagaggg ataccgttta gctaaaaaca ggaacagcta tacttggtca gggcaggaag 420
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<210> 15

<211> 1411

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: IRES and
neomycin sequences

<400> 15

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ggaataaggc cgggtgtgctg ttgtctatat gttattttcc accatattgc cgtcttttgg 120
caatgtgagg gcccggaac ctggccctgt cttcttgacg agcattccta ggggtctttc 180
ccctctcgcc aaaggaatgc aaggtctgtt gaatgtcgtg aaggaagcag ttctctgga 240

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agcttcttga agacaaacaa cgtctgtagc gaccctttgc aggcagcgga accccccacc 300
tggcgacagg tgccctctgcg gccaaaagcc acgtgtataa gatacacctg caaaggcggc 360
acaaccccag tgccacgttg tgagttggat agttgtggaa agagtcaa at ggctctcctc 420
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```

<210> 16

<211> 548

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

pSGT-5 (SDM/RRE1) 5' LTR

<400> 16

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aggtaccaag ggcggcgtgt ggagcgggag tgaaagaggc ctccgggtga tatcagtgc 480
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<210> 17

<211> 248

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

pSGT-5 (SDM/RRE1) region containing the
substitution mutation of the SD

<400> 17

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aaggcagtaa gggcggcagg aacaaaccac gacggagtgc tcctagaaaa gcgcaggccg 120

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```

aggtaccaag ggcggcgtgt ggagcgggag tgaaagaggc ctccgggtga tatcagtgcc 180
tacaccaa at acagtagcca gaagggttg ttatcctacc tttagacggg tagaagattg 240
tgagatg 248

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<210> 18
<211> 237
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence:
      pSGT-5 (SDX/RRE1) leader region

```

```

<400> 18
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aggtaccaag ggcggcgtgt ggagcgggag tgaaagaggc ctccgggcct acaccaaata 180
cagtagccag aagggttggt tctcctacct ttagacgggt agaagattgt ggagatg 237

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<210> 19
<211> 300
<212> DNA
<213> Human immunodeficiency virus type 2

```

```

<400> 19
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cagcaacagc tggtggacgt ggtcaagaga caacaagaaa tggtgcgact gaccgtctgg 180
ggaacaaaaa atctccaggc aagagtcact gctatcgaga aatacttaaa ggaccaggcg 240
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<210> 20
<211> 2769
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: pSGT-5 (RRE1)

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```

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```

```

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```

<210> 21

<211> 9726

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pROD(SD36/EM)

<220>

<221> misc_feature

<222> (1)..(9726)

<223> n represents a, c, t, or g.

<400> 21

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<211> 530

<212> DNA

<213> Human immunodeficiency virus type 2

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<211> 761

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: mutant green fluorescent protein

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<211> 792

<212> DNA

<213> Human immunodeficiency virus type 2

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<211> 2801

<212> DNA

<213> Mus musculus

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<212> DNA

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